IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: **Melampy et al.**	Group Art Unit: **2131**
Serial No.: **09/941,229**	Examiner: **Sherkat, Arezoo**
Filed: **August 28, 2001**	Docket No.: **050115-1050**
For: **SYSTEM AND METHOD FOR PROVIDING ENCRYPTION FOR REROUTING OF REAL TIME MULTI-MEDIA FLOWS**	

REMARKS IN SUPPORT OF PRE-APPEAL BRIEF CONFERENCE

Applicants submit the following remarks in support of a Request for a Pre-Appeal Brief Conference.

AUTHORIZATION TO DEBIT ACCOUNT

It is not believed that additional fees are required, beyond those which may otherwise be provided for in the documents accompanying this paper. However, in the event that additional fees are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. §1.136(a), and any fees required (including fees for net additions of claims) are hereby authorized to be charged to 20-0078.

REMARKS

Applicants respectfully submit that the rejections of the claims in the instant application are clearly in error. The final Office Action alleges that an encoder which combines plaintext data with a sequence of random numbers to produce ciphertext packets, disclosed in *Normile et al.*, corresponds to re-sequencing a series of multi-media data flow packets into a pseudo-random order as recited in claims 45, 52, and 59. However, this is clear error because the claims describe resequencing a series of packets, and *Normile et al.* generates a series packets from plaintext data and random numbers. Thus, the only sequence in the encoder of *Normile et al.* is the sequence of originally generated packets.

The Advisory Action appears to make a second allegation: that a decoder which generates a sequence of decoding data corresponding to the sequence used to encode the data, as disclosed in *Normile et al.*, corresponds to to re-sequencing a series of multi-media data flow packets into a pseudo-random order as recited in claims 45, 52, and 59. This second allegation is also clear error, because the fact that the decoder "re-generates" a sequence which has the same order as the transmitted and encoded packets does not imply that the decoder "re-sequences" anything.

I. Rejection of Independent Claims 45, 52, and 59

Claims 45, 52, and 59 have been rejected under §102(b) as allegedly anticipated by *Normile et al.* (U.S. 5,541,995). Applicant respectfully traverses this rejection. Although Applicant asserts that independent claims 45, 52, and 59 are patentably distinct, the clear errors in rejecting similar elements for these claims are discussed together to facilitate review.

A. The ***encoder*** in *Normile et al.* does not "re-sequenc[e] the series of multi-media data flow packets into a pseudo-random order"

The final Office Action (p. 1) contends that *Normile et al.* discloses this feature in "Figure 7 and its related text in column 7, lines 64-67 and Col. 8, lines 1-25". The reasoning of the rejection is explained as follows:

> …Normile teaches that the encoding function is accomplished by combining the plaintext data with a sequence of random numbers generated by a Pseudo-random Number (PN) generator within the transmitter. The PN generator within the transmitter generates a unique Pseudo-random Number (PN) packet sequence of binary digits or numbers in response to a seed input. Each PN packet generated is at least as long as the longest plaintext data packet received from the source. The PN packets and plaintext data packets are combined preferably in an XOR gate. This combination produces ciphertext/re-sequenced packets.
> (Office Action, p. 1)

The Office Action thus appears to allege that the generation of ciphertext packets as disclosed in *Normile et al.* corresponds to the feature "re-sequencing the series of multi-media data flow packets into a pseudo-random order" as recited in claims 45, 52, and 59.

Applicant disagrees. The section of *Normile et al.* that is cited by the Office Action describes three different sets of packets: plaintext packets 82 are received by a transmitter 80; pseudorandom number (PN) packets 86 are generated by PN generator 88 within transmitter 80; and ciphertext packets 84 are produced by combining the PN packets 86 and plaintext data packets 82 in an XOR gate 90. (*Normile et al.*, Col. 8, lines 10-25.) In contrast, claims 45, 52, and 59 recite "a series of multi-media data flow packets", and further recite that the packets within this series are re-sequenced ("re-sequencing the series of multi-media data flow packets into a pseudo-random order"). Applicant submits that the ciphertext packets 84 in *Normile et al.* cannot be properly considered to be a ***re-sequencing of the plaintext packets 82***, since the ciphertext packets 84 are not the same as the plaintext packets 82. Similarly, the ciphertext packets 84 in *Normile et al.* cannot be properly considered to be a ***re-sequencing of the PN packets 86***, since the ciphertext packets 84 are not the same as the PN packets 86.

B. The ***decoder*** in *Normile et al.* does not "re-sequenc[e] the series of multi-media data flow packets into a pseudo-random order"

In providing an additional explanation of how *Normile et al.* allegedly teaches the "re-sequencing" feature discussed above, the Advisory Action appears to allege that the decoder performs the re-sequencing:

> Normile et al. specifically discloses wherein a receiving decoder is synchronized with a transmitting encoder and generates a sequence of decoding data corresponding to the sequence used to encode the data (Abstract).
> (Advisory Action, p. 3.)

Applicants agree that a particular encoder in communication with a peer decoder does in fact generate a sequence of decoding data which corresponds to the sequence used to encode the data. This is, after all, the functionality required by an encoder-decoder pair: if the sequence generated by the decoder was not the same sequence generated by the encoder, the decoder could not be said to *decode* the encoded data. However, Applicant submits that these statements about the function of a *decoder* do not teach the language recited in claims 45, 52, and 59, in which a series of packets is received, re-sequenced, and *transmitted*. Even assuming, for the sake of argument, that the Abstract teaches that the decoder re-sequences, *Normile et al.* does not disclose that the decoder transmits the re-sequenced series of packets.

Applicant does not, in fact, agree that the Abstract of *Normile et al.* teaches re-sequencing by the decoder. The Advisory Action further contends that:

> [T]he same sequence being used by the transmitting encoder will be used by the receiving decoder to re-generate the decode communication 34 which are in the same order as the original plaintext data packets 12.
> (Advisory Action, p. 3.)

Applicant fails to see how this statement relates to the language recited in claims 45, 52, and 59. The fact that the decoder "re-generates" a sequence which has the same order as the transmitted and encoded packets does not imply that the decoder "re-sequences" anything. This statement is simply a description of a decoder's function.

As explained above, Applicant understands the statements in the Advisory Action to relate to the decoding process of *Normile et al.*. However, if Applicant has misinterpreted these statements, and the Advisory Action actually intended to allege that the encoder teaches the recited in claims 45, 52, and 59, then the Examiner is referred to Section I.A, where Applicant explains why the encoder in *Normile et al.* does not disclose, teach, or suggest the features recited in claims 45, 52, and 59.

II. Rejection of Dependent Claims 46-51, 53-58, 60-62, 67, and 70-73

Claims 46-48, 53-55, and 60 have been rejected under §102(b) as allegedly anticipated by *Normile et al.* (U.S. 5,541,995). Since independent claims 45, 52, and 59 are allowable, claims 46-48, 53-55, and 60 are allowable for at least the reason that each depends from an allowable claim. Claims 50-51, 57-58, and 61-62 have been rejected under §103(a) as allegedly obvious over *Normile et al.* (5,541,995) in view of *Fink et al.* (6,826,684). The addition of *Fink et al.* does not cure the deficiencies of *Normile et al.* discussed above in connection with independent claims 45, 52, and 59. Therefore, since independent claims 45, 52, and 59 are allowable, claims 46-48, 53-55, and 60 are allowable for at least the reason that each depends from an allowable claim.

Respectfully submitted,

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